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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/889,420      | 07/17/2001  | Ulrich Heister       | 520.1002            | 3981             |

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EXAMINER

SCHUBERT, KEVIN R

ART UNIT PAPER NUMBER

2137

DATE MAILED: 11/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                        |                     |  |
|------------------------------|------------------------|---------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |  |
|                              | 09/889,420             | HEISTER, ULRICH     |  |
|                              | <b>Examiner</b>        | <b>Art Unit</b>     |  |
|                              | Kevin Schubert         | 2137                |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 17 July 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>07172001; 06112004</u>  | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

Claims 8-14 have been considered. The examiner has considered the submitted amendments. Appropriate correction and incorporation of the amendments should be taken in the applicant's response.

#### ***Claim Objections***

Claims 8-14 have been objected to because of the following informalities: the claims are numbered incorrectly. Since claims 1-7 have been cancelled by applicant, new claims 8-14 are renumbered 1-7 by the examiner. Appropriate correction is required.

Claim 1 is objected to because of the following informalities: part b) contains a grammatical error. The examiner suggests that the phrase "associated each" be changed to "associated with each". Appropriate correction is required.

Claim 2 is objected to because of the following informalities: a grammatical error exists. The examiner suggests that the phrase "each of the device" be changed to "each of the devices". Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-7 are rejected under 35 U.S.C. 102(b) as being unpatentable by Mionet, U.S. Patent No. 5,920,627.

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As per claim 1, the applicant describes an apparatus for synchronizing ATM transmission between a decryptor and an encryptor with the following limitations which are anticipated by Mionet:

a) a first pseudo-random generator associated with the stream encryptor for generating a respective first variable key associated with each of the at least one stream decryptor using a receptive secret key associated with each of the at least one stream decryptor (Col 4, lines 1-14);

b) a respective second pseudo-random generator associated [with] each of the at least one stream decryptor for generating a respective second variable key using the respective secret key, each of the respective second variable key being identical to the associated respective first variable key (Col 4, lines 15-40);

c) a respective device for cell boundary detection associated with each of the at least one stream decryptor (Col 4, lines 58-64);

d) a respective state automaton associated with the stream encryptor and each of the at least one stream decryptor, a respective state of each respective state automaton associated with the at least one stream decryptor being capable of being advanced by the respective device for cell boundary detection, each of the respective states being used for generating the respective variable key (Col 4, lines 51-67).

As per claim 2, the applicant describes the apparatus of claim 1, which is met by Mionet (see above) with the following limitation which is also met by Mionet:

Wherein the respective state of each state automaton is capable of being fed to a respective device for generating a predefined function using the respective state and the respective secret key, each of the devices for generating a predefined function being capable of controlling the respective pseudo-random generator (Col 4, lines 51-67).

As per claims 3 and 7, the applicant describes the apparatus of claims 1 and 4 respectively, which are met by Mionet (see above) with the following limitations which are also met by Mionet:

a) wherein the at least one stream decryptor includes a plurality of stream decryptors, a respective receiver being associated with each of the plurality of stream decryptors, each of the receivers

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being connected to the transmission channel, a respective header of each of the ATM cells including respective information identifying a respective destination receiver of the receivers (Col 4, lines 12-13; Col 6, lines 54-64; Col 9, lines 1-4);

b) wherein the stream encryptor is capable of generating the respective first variable key using the respective secret key associated with the respective destination receiver of a respective transmitted ATM cell and the respective state (Col 4, lines 1-14; Col 4, lines 51-57);

c) wherein each of the state automaton are capable of being advanced independently of the respective destination receiver (Col 5, lines 29-34);

The applicant should note that regarding the "plurality of stream decryptors" in part a), Mionet's system includes means for receiving "at least one key from at least one decryption device" (Col 4, lines 12-13). Clearly, Mionet accounts for a plurality of decryptors.

As per claim 4, the applicant describes the following method for synchronizing ATM transmission between a decryptor and an encryptor in which parts a) and b) are met by Mionet in claim 1 (see above) with the following additional limitation which is also anticipated by Mionet:

c) advancing on a per-ATM cell basis a respective state of a respective state automaton associated with the stream encryptor and each of the at least one stream decryptor, each of the first and second variable keys being a function of the respective state (Col 5, lines 29-34);

The applicant should note that a timing mechanism is included in Mionet's system to facilitate cell position synchronization.

As per claim 5, the applicant describes the method of claim 4, which is met by Mionet (see above), with the following limitation which is also met by Mionet:

Wherein the advancing of the respective state associated with each of the at least one stream decryptor is performed in response to a detecting of a respective ATM cell boundary, the detecting being performed by comparing a check sequence computed from a respective header of the ATM cell to a check sequence transmitted in the header (Col 6, lines 54-64; Col 9, lines 1-4).

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As per claim 6, the applicant describes the method of claim 4, which is met by Mionet (see above), with the following limitation which is also met by Mionet:

Further comprising generating a respective input variable for each of the pseudo-random generator using the respective secret key, the respective state, and a respective predefined function;

The applicant should note the secret key is mentioned in Col 4, lines 41-46, the respective state is mentioned in Col 4, lines 65-67, and the respective predefined function is a timing mechanism mentioned in Col 5, lines 29-34.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Schubert whose telephone number is (571) 272-4239. The examiner can normally be reached on M-F 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Caldwell can be reached on (571) 272-3868. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Andrew Caldwell  
Andrew Caldwell